

**UNITED STATES DEPARTMENT OF COMMERCE****United States Patent and Trademark Office**Address: COMMISSIONER OF PATENTS AND TRADEMARKS
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/436,796 11/08/99 DONOVAN

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025537
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TM02/0827

EXAMINER

LOGSDON, J

ART UNIT

PAPER NUMBER

2662

DATE MAILED:

08/27/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/436,796

Applicant(s)

DONOVAN ET AL.

Examiner

Joe Logsdon

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections—35 U.S.C. 112, First Paragraph:

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-28 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 19 specify that the SUA is included in a PSTN, and the call setup request, which originates from the SUA, identifies the DUA. According to claim 1, the setup request originates from the SUA. Claim 16 specifies that the IP telephony proxy server receives a call setup request from the SUA that identifies the DUA. The specification states, "The SIP INVITE is addressed to the called party DUA 103 at a proxy address at the SPS 106" (page 12). This statement is consistent with the well-known method of IP addressing in which e-mail addresses are used. The specification goes on to state, "The SIP INVITE specifies the real IP address of the DUA 103" (page 12). As discussed in Schulzrinne, section 4, for example, the INVITE message would thus be of the form user@IP_address. Both the user and the IP address are specified, but the DUA is not. The specification fails to describe this modification to conventional SIP. Furthermore, the specification fails to describe the ingress gateways and the manner in which they are used. According to Fig. 1, the call setup request originates from the SUA, but according to Fig. 2 the call setup request originates from the ingress gateway. According to Fig. 1, an

INVITE message propagates through both a PSTN and an IP network, but no description of this modification of conventional SIP is provided. According to Fig. 2, some type of message must first have been sent from the SUA to an ingress gateway, but the specification fails to describe the ingress gateways or the manner in which they serve their function. Claims 2-15, 17, 18, and 20-28 depend on claims 1, 16, and 19 and are therefore similarly rejected.

3. Claims 1-28 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1 and 19 specify that the SUA is included in a PSTN, and the call setup request, which originates from the SUA, identifies the DUA. According to claim 1, the setup request originates from the SUA. Claim 16 specifies that the IP telephony proxy server receives a call setup request from the SUA that identifies the DUA. The specification states, "The SIP INVITE is addressed to the called party DUA 103 at a proxy address at the SPS 106" (page 12). This statement is consistent with the well-known method of IP addressing in which e-mail addresses are used. The specification goes on to state, "The SIP INVITE specifies the real IP address of the DUA 103" (page 12). As discussed in Schulzrinne, section 4, for example, the INVITE message As discussed in Schulzrinne, section 4, for example, the INVITE message would thus be of the form user@IP_address. Both the user and the IP address are specified, but the DUA is not. The specification fails to describe this modification to conventional SIP. Furthermore, the specification fails to describe the ingress gateways and the manner in which they are used. According to Fig. 1, the call setup request originates from the SUA, but according

to Fig. 2 the call setup request originates from the ingress gateway. According to Fig. 1, an INVITE message propagates through both a PSTN and an IP network, but no description of this modification of conventional SIP is provided. According to Fig. 2, some type of message must first have been sent from the SUA to an ingress gateway, but the specification fails to describe the ingress gateways or the manner in which they serve their function. The specification therefore fails to enable one of ordinary skill in the art to make or use the invention as claimed. Claims 2-15, 17, 18, and 20-28 depend on claims 1, 16, and 19 and are therefore similarly rejected.

Claim Rejections—35 U.S.C. 103(a):

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-15 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulzrinne in view of Regnier et al. and Patel et al.

With regard to claims 1-5, 7, 9-14, and 19-22, Schulzrinne teaches the use of SIP for inviting participants to a conference call over the Internet (abstract; page 65). The terminal where the called party can be reached must be determined; to accomplish this the address of the appropriate SIP server is first determined. To find the appropriate SIP server, it may be necessary for an SIP server to act as a redirect server—sending the client information on the location of the appropriate SIP server. The same SIP server, however, could act as a proxy—issuing an invitation to the called party. The SIP server can therefore be divided into two separate servers, where one server is a location server that functions as a redirect server, and the other server acts as proxy. The proxy receives and forwards an INVITE message to the location server; the proxy receives routing information from the location server; the proxy routes the INVITE message to a destination server using routing information it received from the location server; the proxy waits for an OK response from the destination server; if the proxy receives the OK message, it establishes communication between source and destination by sending an OK message to the source; the called party can, however, refuse the session—thereby preventing call establishment. Each SIP request includes the address of each SIP server through which it passes so that responses can find their way back to the source of the request. The SIP server continues to search for the destination server—whether it is an SIP server or other type of server, such as an SMTP

server—until it either finds the destination server or fails to find it. (See pages 68-70. See also Figs. 2 and 3.) Schulzrinne fails to teach that the destination server is a gateway, and that a session is established with a particular destination server if and only if the proxy server waits less than some predetermined time for receipt of the response to its call setup request. Regnier et al. discloses a method and system for dynamic routing of a call in an intelligent telecommunications network (abstract). A first switching unit attempts a direct link to a neighboring switching unit. If the attempt is unsuccessful, the first switching unit queries a central computer, which updates a database to identify the corresponding link as unavailable; determines an alternative route using a tandem node; and returns this information to the first switching unit (abstract; column 8, line 50 to column 10, line 15). The nodes can be gateways (column 11, lines 11-43). Patel et al. discloses a shared auto-negotiation device and method for multiple port network devices (abstract). The device includes a shared unit to which ports are connected in round robin fashion, and an arbiter (abstract). The device polls the ports in round robin fashion until the state of each port is resolved and stores the state of each port; the polling resumes at the next port if the state remains unresolved for a predetermined time (column 5, lines 13-62). It would have been obvious to one of ordinary skill in the art to modify the teaching of Schulzrinne so that the destination server is a gateway, as in Regnier et al., and so that a session is established with a particular destination server if and only if the proxy server waits less than some predetermined time for receipt of the response to its call setup request, as in Patel et al., because use of gateways allows the systems of caller and callee to use different protocols, and restricting the wait time avoids situations in which the proxy server must wait indefinitely because of a link failure.

With regard to claim 6, although Schulzrinne fails to explicitly teach that the proxy server could count the number of requests that have been made by a source user agent, it would have been obvious to one of ordinary skill in the art to modify the teaching of Schulzrinne so that the proxy server counts the number of requests that have been made so that if the proxy simultaneously receives requests from several users the proxy could assign priorities to the requests in a manner that depends in part on the number of attempts that have been made in the past by each user.

With regard to claim 8, Schulzrinne teaches that the proxy server can comprise an H.323 gatekeeper (pages 66, 68, and 72).

With regard to claim 15, although Schulzrinne fails to explicitly teach that the proxy server could make only one attempt to reach each destination server before moving on to the next destination server, it would have been obvious to one of ordinary skill in the art to modify the teaching of Schulzrinne so that only one attempt is made because such a method would allow the proxy server to avoid situations in which it must wait indefinitely because of a link failure.

7. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulzrinne in view of Regnier et al.

With regard to claims 16 and 17, Schulzrinne teaches the use of SIP for inviting participants to a conference call over the Internet (abstract; page 65). The terminal where the called party can be reached must be determined. To accomplish this the address of the appropriate SIP server is first determined. To find the appropriate SIP server, it may be necessary for an SIP server to act as a redirect server—sending the client information on the location of the

appropriate SIP server. The same SIP server, however, could act as a proxy—issuing an invitation to the called party. The SIP server can therefore be divided into two separate servers, where one server is a location server that functions as a redirect server, and the other server acts as proxy. The proxy receives and forwards an INVITE message to the location server; the proxy receives routing information from the location server; the proxy routes the INVITE message to a destination server using routing information it received from the location server; the proxy waits for an OK response from the destination server; if the proxy receives the OK message, it establishes communication between source and destination by sending an OK message to the source; the called party can, however, refuse the session—thereby preventing call establishment. Each SIP request includes the address of each SIP server through which it passes so that responses can find their way back to the source of the request. The SIP server continues to search for the destination server—whether it is an SIP server or other type of server, such as an SMTP server—until it either finds the destination server or fails to find it. (See pages 68-70. See also Figs. 2 and 3.) Schulzrinne fails to teach that the destination server is a gateway, and that the proxy server waits a predetermined amount of time to determine whether to attempt to contact another gateway. Regnier et al. discloses a method and system for dynamic routing of a call in an intelligent telecommunications network (abstract). A first switching unit attempts a direct link to a neighboring switching unit. If the attempt is unsuccessful, the first switching unit queries a central computer, which updates a database to identify the corresponding link as unavailable; determines an alternative route using a tandem node; and returns this information to the first switching unit (abstract; column 8, line 50 to column 10, line 15). The nodes can be gateways (column 11, lines 11-43). It would have been obvious to one of ordinary skill in the art to modify

the teaching of Schulzrinne so that the destination server is a gateway and so that the device that stores the status of the ports communicates with the device that stores the possible routes corresponding to each destination address, as in Regnier et al., because use of gateways allows the systems of caller and callee to use different protocols, and allowing the device that stores the status of the ports to communicate with the device that stores the possible routes corresponding to each destination address would allow the device to provide a table of routes whose status is known to the proxy server—thereby allowing the proxy server to quickly decide which route to use for the call.

With regard to claim 18, Schulzrinne teaches that the proxy server can comprise an H.323 gatekeeper (pages 66, 68, and 72).

Response to Arguments:

8. Applicant argues that the specification teaches that the claimed invention is directed toward a gateway that is dynamically selected to establish a communication session through a packet-based telecommunications network interconnected with a PSTN. But according to the specification, this is only an embodiment of the claimed invention. Furthermore, the claims do not specify that the user agents are contained only within PSTNs. Any device within a PSTN can also be within an IP network and vice versa. Both the SUA and the DUA can be located within PSTNs, yet they can communicate using IP; in particular, they could send and receives SIP messages. Applicant's argument that the SUA and DUA are included within PSTNs is therefore weak because any device can, using an interface if necessary, be included in a PSTN.

Applicant argues that several aspects of the claimed invention are taught in neither Regnier et al. nor Patel et al. But the latter two references were used as secondary references, and the aspects mentioned are consistent with the teachings of the latter two references.

Claims 16-18 are notably broad—using the term “telephony system.” This could be any type of telephony system—including an IP telephony system. Furthermore, virtually any type of network can somehow be applied to some type of telephony.

Contrary to Applicants assertion, H.323 gatekeepers are so well-known in the art that the mere teaching that H.323 signaling can be used suggests that the proxy server could comprise an H.323 gatekeeper.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Logsdon whose telephone number is (703) 305-2419. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

11. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314


For informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Joe Logsdon

Patent Examiner

August 21, 2001


HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600